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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/503,506	02/14/2000	Sang-seo Lee	Q57599	6707

7590 08/04/2004

Sughrue Mion Zinn MACPeak & Seas  
2100 Pennsylvania Avenue N. W.  
Washington, DC 20037-3202

EXAMINER

BLAIR, DOUGLAS B

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/503,506

Applicant(s)

LEE, SANG-SEO

Examiner

Douglas B Blair

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 16-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 16-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Terminal Disclaimer***

1. The terminal disclaimer filed on 5/6/2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent Number 6,597,918 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7 and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 6,400,958 to Isomursu et al. in view of U.S. Patent Number 6,185,208 to Liao.

4. As to claim 1, Isomursu teaches a data sending protocol using a short message service (col. 5, lines 52-65), the transmission protocol comprising the steps of: (a) inserting a data connection service identifier into a user data field (col. 6, lines 29-60, the application identifier); (b) segmenting input message data into a plurality of short message data fields and inserting a segmented message data field, and a field indicating a current short message number, into the user data field (col. 6, lines 1-28); (c) generating a short message field using the user data field

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(col. 6, lines 1-28); and (d) transmitting the short message field (col. 6, lines 29-60); however Isomursu does not explicitly teach a field indicating the number of short messages.

Liao teaches a field indicating the number of segmented short messages (col. 5, lines 17-55).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of Isomursu regarding the provision of short message service with longer messages with the teachings of Liao regarding the a field indicating the number of segmented short messages because indicating the total number of messages in a longer message allows the receiver to reconstruct the original longer message (Liao, col. 5, lines 17-55).

5. As to claim 2, Isomursu teaches the data sending protocol of claim 1, wherein the step (a) uses a code for data connection service identifier which is not used in an ASCII code table (col. 6, lines 38-41).

6. As to claim 3, Isomursu teaches the data sending protocol of claim 1, wherein the step (a) uses a code data connection service identifier which is not used in a KS5601 standard (col. 6, lines 38-41).

7. As to claim 4, neither Isomursu nor Liao teach the use of the codes 98H or 99H; however it would be an obvious design choice to use such codes. It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to use the codes 98H and 99H because these codes represent arbitrary numbers and therefore would have been obvious choices for a numbered code that is arbitrary.

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8. As to claim 5, Isomursu teaches a data sending protocol of claim 1, further comprising data connection service identifier in the user data field (col. 22, lines 24-55, the short message identifier.).

9. As to claim 6, Isomursu teaches a data sending protocol of claim 1, further comprising a step of (f) translating a delivery message and extracting an identifier requesting retransmission of data (col. 22, lines 24-55).

10. As to claim 7, Liao teaches a step of extracting a field indicating a total number of short messages (col. 5, lines 17-55) and Isomursu teaches a step of extracting a field indicating a retransmission request short message number (col. 22, lines 24-55).

11. As to claims 16-22, they feature the same limitations as claims 1-7, directed to apparatus for implementing the protocol from claims 1-7, and are thus rejected on the same basis as claims 1-7.

12. Claims 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 6,400,958 to Isomursu et al. in view of U.S. Patent Number 6,185,208 to Liao in further view of U.S. Patent Number 6,141,550 to Ayabe et al..

13. As to claim 8, Isomursu teaches the data sending protocol of claim 7, wherein the step (f) further comprises generating a short message field using the user data field and retransmitting the short message field (col. 22, lines 24-55); however Isomursu does not explicitly teach inserting a data field corresponding to the number of the short message.

Ayabe teaches the insertion of, among segmented short messages, a short message data field corresponding to the retransmission request short message number, into a user data field (col. 7, lines 8-24).

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It would have been obvious to one of ordinary skill in the Communications engineering art at the time of the invention to combine the teachings of Isomursu regarding a short message service implementation with the teachings of Ayabe regarding the insertion of a data field corresponding to a retransmission request because inserting a number for retransmissions allows a receiver to determine which fields are duplicates (Ayabe, col. 7, lines 8-30).

14. As to claim 23, it features the same limitations as claims 7 and 8 and is thus rejected for the same reasons as claims 7 and 8.

#### ***Response to Arguments***

Applicant's arguments filed 5/6/2004 have been fully considered but they are not persuasive. The applicant argues the following points: (a) Liao does not show a field indicating the total number of segmented short messages; and (b) Isomursu fails to teach or suggest the feature of inserting a reference number field, which indicates a number for referring to a type of data connection employed, into a position next to the data connection service identifier in the user data field.

As to point (a), the flag discussed in column 6, lines 57-61 of Liao indicates the last short message and therefore the total number of messages. The applicant's claim limitations do not stipulate the content of the field or the timing of the delivery of the field.

As to point (b), the reference number field is a non-functional limitation because the applicant's specification provides no details as to how or even if such a field is even processed at the receiving end. Isomursu teaches a data connection service identifier as cited above.

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***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas B Blair whose telephone number is 703-305-5267. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on 703-305-9705. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3800.

Douglas Blair

*DBB*

*Jack B. Harvey*  
JACK B. HARVEY  
SUPERVISORY PATENT EXAMINER